Using Inverse Kinematics and Virtual Reality to Control a Robotic Arm

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According to the Bureau of Labor Statistics, in 2014, 4,821 workers had fatal injuries while performing their jobs. While some companies have started using robots to replace workers in dangerous environment, in many cases the robots require specially trained operators and prove to be expensive. My solution eliminates these problems by using virtual reality, sensors, a robotic arm, and solving for a formula called inverse kinematics, the robot and virtual reality system can make using and controlling the robot very easy to use. The robot can be used in many different appliances such as bomb defusal and collecting scientific data. Scientists can now collect data in dangerous area by using the robot with the sensors that are mounted on the robot. This robot is very easy to use because the controllers can sense where your hand is for controlling the robot arm.Overall, the system is inexpensive as the VR system is a consumer product and the device itself is using inexpensive materials and small microprocessors as well as it is very easy to use.

Awards Won: